

WHAT IS CLAIMED IS:

1. A method of obtaining a cultivated crop capable of mitigating the effects of introgression of at least one genetically engineered, commercially desirable genetic trait to an undesirable, uncultivated interbreeding species related to the cultivated crop, the method comprising transforming a population of plants of the cultivated crop to co-express the at least one genetically engineered, commercially desirable genetic trait, and at least one genetically linked, mitigating genetic trait, wherein said mitigating genetic trait is selected such that an undesirable, uncultivated interbreeding species related to the cultivated crop expressing said mitigating genetic trait is less fit than an undesirable uncultivated interbreeding species related to the cultivated crop not expressing said mitigating genetic trait, thereby obtaining a cultivated crop capable of mitigating the effects of introgression of the at least one genetically engineered, commercially desirable genetic trait of the cultivated crop to the undesirable, uncultivated interbreeding species related thereto.

2. The method of claim 1, wherein the at least one commercially desirable genetic trait is selected from the group consisting of herbicide resistance, disease, insect and nematode resistance, environmental stress resistance, high productivity, modified agronomic quality, enhanced yield, modified ripening, bioremediation, expression of heterologous products and genetically modified plant products.

3. The method of claim 1, wherein said at least one mitigating genetic trait is selected from the group consisting of anti-seed shattering, abolished secondary dormancy, dwarfism, uniform or delayed ripening, seed stalk bolting, seed coat defects, uniform germination, root storage promotion, biennial growth, non-flowering and sterility.

4. The method of claim 1, wherein said at least one mitigating genetic trait is an endogenous genetic trait of said cultivated crop.

5. The method of claim 1, wherein said cultivated crop is tobacco, rice or oilseed rape, said commercially desirable genetic trait is herbicide resistance, and said mitigating genetic trait is gibberellic acid insensitivity.

6. The method of claim 1, wherein said cultivated crop is corn, said commercially desirable genetic trait is expression of a heterologous pharmaceutical protein, and said mitigating genetic trait is endosperm-specific expression of a shrunken seed mutation.

7. The method of claim 1, wherein said cultivated crop is beets, said commercially desirable genetic trait is herbicide resistance, and said mitigating genetic trait is antibolting.

8. The method of claim 1, wherein said cultivated crop is trees, said commercially desirable genetic trait is modified lignin, and said mitigating genetic trait is tapetum-specific expression of a cytotoxic gene.

9. A genetic construct for mitigating the effects of introgression of a genetically engineered commercially desirable genetic trait of a cultivated crop to an undesirable, interbreeding species related to the cultivated crop, the genetic construct comprising a first polynucleotide encoding at least one commercially desirable genetic trait and a second polynucleotide encoding at least one mitigating genetic trait, wherein said at least one mitigating genetic trait is selected such that an undesirable, interbreeding species related to the cultivated crop expressing said at least one mitigating genetic trait is less fit than an undesirable, interbreeding species related to the cultivated crop not expressing said at least one mitigating genetic trait and wherein expression of

said commercially desirable and said at least one mitigating genetic trait is genetically linked.

10. The genetic construct of claim 9, wherein said first and said second polynucleotides are covalently linked.

11. The genetic construct of claim 9, wherein said first and said second polynucleotides are functionally linked.

12. The genetic construct of claim 11, wherein said first and second polynucleotides are co-transformed.

13. The genetic construct of claim 12, wherein said first and second polynucleotides are integrated into the same chromosomal locus.

14. The genetic construct of claim 9, wherein the at least one commercially desirable genetic trait is selected from the group consisting of herbicide resistance, disease, insect and nematode resistance, environmental stress resistance, high productivity, modified agronomic quality, enhanced yield, modified ripening, bioremediation, expression of heterologous products and genetically modified plant products.

15. The genetic construct of claim 9, wherein said at least one mitigating genetic trait is selected from the group consisting of anti-seed shattering, abolished secondary dormancy, dwarfism, uniform or delayed ripening, seed stalk bolting, seed coat defects, uniform germination, root storage promotion, biennial growth, non-flowering and sterility.

16. A genetically modified cultivated crop comprising the genetic construct of claim 9.